

- 23 -

CLAIMS

1. A method for detecting the putative agent for TSE in animals comprising taking a body tissue sample from an animal, reacting the sample in a immunological assay with a labelled antibody which is capable of reacting with PrP<sup>SC</sup> and determining the amount of labelled antibody bound to the sample.
2. A method as claimed in claim 1 wherein the antibody used in the assay is raised against a synthetic peptide sequence having the general formula:

X-(R<sub>1</sub>-Lys-His-R<sub>2</sub>)-Ala-Gly-Ala-Ala-Ala-R<sub>3</sub>-Gly-Ala-Val-Val-Gly-G  
15  
1y-Leu-Gly-Gly-Tyr-Met-Leu-Gly-Ser-Ala-Met-Ser-(Arg-Pro-R<sub>4</sub>-R<sub>5</sub>)-Y

wherein R<sub>1</sub> is an amino acid residue selected from Met, Leu and Phe;  
R<sub>2</sub> is either Met or Val;  
R<sub>3</sub> is Ala or is absent;  
R<sub>4</sub> and R<sub>5</sub> are independently an amino acid residue selected  
20 from Leu, Ile and Met; one or more residues within brackets maybe  
present or absent with the proviso that if they are present they are  
attached to the rest of the peptide in sequence; and X and Y may each  
independently be absent or independently be one or more additional  
amino acid residues.

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3. A method as claimed in any preceding claim wherein the antibodies  
are prion specific antibodies raised against one or more of the  
following sequences:

30 MVKSHIGSWILVLFVVAMWSDVGLCKRKPKPGGWNTGGSRYPG0-44  
GSPGGNRYPPOGGGGWGQPHGGGWGQPHGGGWGQPHGGGQGQP-87  
GGGGWGQGGSHSOWNKPSKPPKTNMKHVAGAAAGAVVGGLGGY-131  
MLGSAMSSPLIHFGNDYEDRYTRENMYRYPNQVYYRPVDRYSNQNN-177

35 4. A method as claimed in claim 3 wherein the antibodies are  
antibodies raised against the underlined sequences shown in claim 3.

- 24 -

5. A method as claimed in any preceding claim wherein the immunological assay may be a competitive assay in which a solid support, suitably a microtitre plate, is pre-coated with a carrier protein-peptide conjugate, the animal tissue sample and an anti-peptide antibody are added to the solid support, allowed to react and the support washed, a labelled anti-(anti-peptide antibody) antibody is added, allowed to react, washed, a signal reagent added and the signal read.

10 6. The method as claimed in any preceding claim wherein the animals are selected from cattle, sheep and pigs and the tissue sample is taken from a carcass of such animals.

15 7. A method as claimed in any preceding claim wherein a sample of CNS tissue, suitably a cross-section of spinal cord, is used for testing.

8. A test kit for the detection of TSE in animals comprising an anti-peptide antibody raised against a synthetic peptide sequence having the general formula:

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$$X-(R_1\text{-Lys-His-}R_2\text{)-Ala-Gly-Ala-Ala-R}_3\text{-Gly-Ala-Val-Val-Gly-Gly-Leu-Gly-Gly-Tyr-Met-Leu-Gly-Ser-Ala-Met-Ser-(Arg-Pro-}R_4\text{-}R_5\text{)-Y}$$

wherein  $R_1$  is an amino acid residue selected from Met, Leu and Phe;

25  $R_2$  is either Met or Val;

$R_3$  is Ala or is absent;

$R_4$  and  $R_5$  are independently an amino acid residue selected from Leu, Ile and Met; one or more residues within brackets maybe present or absent with the proviso that if they are present they are

30 attached to the rest of the peptide in sequence; and X and Y may each independently be absent or independently be one or more additional amino acid residues.